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Hostile parent-adolescent relationships have negative implications for youth well-being (Laursen & Collins, 1994; Steinberg & Silk, 2002). However, predictors of parent-adolescent hostility have received modest empirical attention, and investigations of the effects of multiple family subsystems on parent-adolescent hostility are even fewer (Montemayor, 1983). Thus, family systems theory was used to examine the associations among adolescent fear of negative evaluation, parental intrusiveness, coparental support, and family cohesion during 6th grade and parent-adolescent hostility during 8th grade. Prospective and change-oriented analyses were conducted among a sample of 416 two-parent families. Mother-adolescent and father-adolescent hostility were examined in separate models.

Using structural equation modeling, prospective results indicated that adolescent fear of negative evaluation during 6th grade was associated with mother-adolescent, but not father-adolescent, hostility during 8th grade. Significant associations were also found among parental intrusiveness and coparental support during 6th and 8th grade mother- and father-adolescent hostility. Change-oriented analyses indicated that only parent-adolescent hostility at 6th grade was associated with changes in parent-adolescent hostility across middle school for both mother-adolescent and father-adolescent models. Youth gender differences in prospective and change-oriented analyses were examined. Overall, the results contribute to previous research by demonstrating that the functioning among multiple family subsystems are important to investigate during early adolescence as they may be important predictors of parent-adolescent hostility.

PARENT-ADOLESCENT HOSTILITY: A FAMILY SYSTEMS APPROACH

by

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_____
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To my parents who have inspired me to ask questions, encouraged me to dream, and supported my life goals. And to Tom, your love and support have enabled me to persevere.

APPROVAL PAGE

This thesis written by Bridget B. Weymouth has been approved by the following committee of the Faculty of The Graduate School at The University of North Carolina at Greensboro.

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CHAPTER I

INTRODUCTION

Adolescence marks a developmental period characterized by changes and transitions, many of which occur in the parent-adolescent relationship (Smetana, Campione-Barr, & Metzger, 2006; Steinberg, 2001). Consequently, parent-adolescent relationships have received decades of attention in the empirical developmental literature and popular culture. Historically, research and popular culture characterized adolescence as a period of increased “storm and stress” that is marked by stubbornness, rebellion, and parent-adolescent conflict that produces detrimental consequences for family relationships and youth development. Research has since moved away from this characterization by suggesting that tumultuous adolescent behaviors do not best describe typical parent-adolescent relationships (Smetana et al., 2006; Steinberg, 1990; Steinberg, 2001).

Adolescence, however, is marked by significant increases in parent-adolescent disagreement (Laursen, Coy, & Collins, 1998; McGue, Elkins, Walden, & Iacono, 2005; Steinberg, 1990), and general consensus among scholars is that parent-adolescent disagreements that pertain to everyday issues, such as chores or homework, are typical (Smetana et al., 2006). Montemayor (1983), making an important distinction between disagreements and hostility, stated, “the overt expression of conflict poses a greater threat to a relationship than does the mere existence of attitudinal differences, which may or may not lead to arguments” (p. 87). Likewise, Laursen et al. (1998) added to the

literature by conducting a meta-analysis that delineated parent-adolescent disagreement from the affective salience of parent-adolescent conflicts (i.e., intensity). This work highlighted the importance of examining *how* disagreements are expressed between parents and youth. Importantly, an examination of how conflict is expressed allows research to conceptually distinguish typical disagreement and behavioral opposition from heated, hostile parent-adolescent interactions.

Beyond the presence or content of disagreement, *how* parents and adolescents express conflict is important given that research has demonstrated that callous, hostile parent-adolescent exchanges are associated with negative developmental outcomes for youth (Laursen & Collins, 1994; Smetana et al., 2006; Steinberg & Silk, 2002). Furthermore, research suggests that parent-adolescent disagreement is associated with negative youth outcomes only under conditions of negative parent-youth relationships (Adams & Laursen, 2007). Likewise, scholars suggest “parent-child conflict has negative effects on adolescent development when it occurs within the context of hostile and contentious interchanges” (Steinberg & Silk, 2002, p. 123). In sum, and in contrast to historical perspectives, parent-adolescent disagreement and conflict are not inherently negative. Rather, overtly hostile parent-adolescent disagreements and conflict, not the mere presence or content of conflict, are likely to be the most salient predictors of negative youth outcomes.

The present study conceptually distinguishes between parent-adolescent disagreement and parent-adolescent dyadic hostility. Scholarly work in the area of marital conflict also has delineated disagreement from affective expression during conflict and has examined different modes of expression during conflict. More specifically, this research has distinguished overt hostility from covert hostility (Buehler,

Krishnakumar, Anthony, Tittsworth, & Stone, 1994; Buehler et al., 1998). The present study specifically examines overt, dyadic, parent-adolescent hostility. Adapting the definition from the marital literature, the present study defines overt, dyadic, parent-adolescent hostility as direct hostile behaviors that occur on the part the youth and parent. Indicators include yelling, swearing, and name-calling (Buehler et al., 1994).

Despite the demonstrated negative consequences that hostile parent-adolescent exchanges have for youth development, most research has solely focused on and measured the presence and content of parent-adolescent disagreement using the Issues Checklist (Prinz, Foster, & O'Leary, 1979) or similar measures. This assessment overlooks behavioral measures of parent-youth relationships that elucidate how disagreements are expressed. Some studies have measured the affective salience of parent-adolescent disagreements; however, most of these studies have only included general ratings of disagreement anger (typically on scales ranging from calm to angry), and have not assessed overtly hostile modes of parent-adolescent expression that include specific behaviors such as yelling or name-calling. Exceptions regarding these limited measurements can be found in studies by Buehler (2006) and Conger and Ge (1999). Furthermore, the predictors of overt parent-adolescent hostility have received only modest empirical attention.

Broadly, scholars have called for more research that explains why and how the parent-adolescent relationship changes during adolescence (McGue et al., 2005). More specifically, scholars have pointed to the lack of guiding theoretical frameworks among examinations of parent-adolescent contentious exchanges in previous research, as well as the lack of research that examines adolescent, parent, and family influences on conflict (Montemayor, 1983) and perspectives of different family members regarding the

nature of conflict (Steinberg, 2001). These suggestions may also be extended, more specifically, to the examination of parent-adolescent hostility. Longitudinal investigations of parent-adolescent conflict, and specifically hostility, are also limited (McGue et al., 2005; Shanahan, McHale, & Crouter, 2007). Furthermore, decades after Montemayor's (1983) criticism of the lack of strong theoretical frameworks and incorporation of such frameworks into the study of adolescent, parent, and family influences , theoretically based studies that assess multiple family-level influences on parent-adolescent hostility are even fewer.

To fill these gaps, the purpose of this study is to investigate family system predictors of overt, parent-adolescent dyadic hostility across early adolescence. Using family systems theory as the guiding framework, this study examines adolescent fear of negative evaluation, parental intrusiveness, coparental support, and family cohesion as predictors of parent-adolescent hostility two years later. Following research in the conflict literature suggesting that predictors of parent-adolescent conflict depend on parent and youth gender (Allison & Shultz, 2004; Forehand & Thomas, 1992; Laursen et al., 1998; Lundell, Grusec, McShane, & Davidov, 2008; Smith & Forehand, 1986), mother-adolescent and father-adolescent dyadic hostility are examined in separate models and adolescent gender is examined as a moderator. This study examines the predictors of subsequent parent-adolescent hostility within a sample of 416 two-parent families (Wave 1). Youth fear of negative evaluation, parental intrusiveness, coparental support, and family cohesion are examined when youth are in 6th grade, and parent-adolescent hostility is examined when youth are in 8th grade. Change-oriented analyses also control for parent-adolescent hostility during 6th grade.

Theoretical Foundations

Family systems theory serves as the theoretical framework for this study. Family systems are composed of multiple subsystems that consist of individuals, as well as dyadic (e.g., parental) and triadic (e.g., parents-child) relationships within the family. A key assumption of family systems theory is that subsystems and systems influence and are influenced by other subsystems and the surrounding environmental context (Cox & Paley, 1997; Minuchin, 1985; White & Klein, 2008). However, family systems theory also emphasizes that the family system must be viewed as a whole because the system is "greater than the sum of its parts" (White & Klein, 2008, p. 156). Accordingly, family systems theory frames the present research by suggesting that the parent-adolescent dyadic subsystem, and more specifically parent-adolescent dyadic hostility, may be shaped by individual youth and parent factors, the coparental relationship, and whole family functioning.

Additionally, the theory suggests the influences among systems, subsystems, and their environments are not without limits, because systems and subsystems function within boundaries. Boundaries control and regulate the flow of information among family subsystems and systems and vary in their permeability over time (Cox & Paley, 1997). Family systems theory posits that experiences within one system or subsystem may affect another subsystem depending on the permeability of the surrounding boundaries of each (Minuchin, 1985). Using this framework and these propositions, the present study examines constructs related to the adolescent and parent individual subsystems, as well as the parental dyad subsystem and the entire family system to predict subsequent parent-adolescent hostility. These constructs include adolescent fear of negative evaluation, parental intrusiveness, coparental support, and family cohesion.

CHAPTER II

LITERATURE REVIEW

Parent-Adolescent Dyadic Hostility

The present study defines overt, dyadic, parent-adolescent hostility as hostile behaviors that occur on the part the youth and parent, and indicators include anger, yelling, swearing, and name-calling (Buehler et al., 1994). In contrast to this study's focus on hostility, previous literature has typically examined parent-adolescent conflict, which has been defined and measured as disagreement regarding every day issues (e.g., the Issues Checklist; Prinz et al., 1979). This study posits that disagreement may or may not include hostility. Occasionally, scholars have also included an additional measure of the level of anger associated with these disagreements, ranging from calm to angry.

In terms of family subsystems, previous research has examined a variety of constructs from adolescent, parent, coparental, and family-level subsystems as predictors of parent-adolescent disagreement and the anger associated with these exchanges; however, constructs from multiple family subsystems, to the author's knowledge, have not been examined in the same model. Adolescent characteristics that have predicted parent-adolescent anger include difficult temperament (Trentacosta et al., 2011), goals of dominating mother-youth conversations (Lundell et al., 2008), comfort in disagreeing with mothers (Fuligni, 1998), and dating behaviors (Dowdy & Kliewer, 1998). Research has also found that parenting characteristics, such as

dimensions of authoritarian (Smetana, 1995) and hostile parenting behavior (Barber, 1994), including physical punishment, are positively associated with parent-adolescent disagreement. At a dyadic parent level, research has found that marital hostility and conflict are associated with parent-adolescent hostility (Gerard, Krishnakumar, & Buehler, 2006). At a family level, research suggests family structure (i.e., divorced versus married) (Laursen, 2005; Smetana, Yau, Restrepo, & Braeges, 1991) and warm, supportive family interactions are negatively associated with parent-adolescent disagreement (Reuter & Conger, 1995). The present study adds to this literature by including youth fear of negative evaluation from peers and nonfamilial adults, parental intrusiveness, coparental support, and family cohesion as a potentially important adolescent-, parent-, coparental-, and family-level predictors of parent-adolescent hostility, respectively. Additionally, research suggests that mothers experience more parent-adolescent disagreement (Smith & Forehand, 1986) and angrier (Laursen et al., 1998; Lundell et al., 2008) parent-adolescent interactions than fathers (Smetana, Campione-Barr, & Metzger 2006). Thus, in the present study, mother-youth and father-youth hostility are examined in separate models.

The present study builds on the findings of previous research, but goes beyond general measures of parent-adolescent disagreement. In contrast to previous research that has overwhelmingly examined parent-adolescent disagreement, in terms of frequency and content, and less commonly, the expressed anger within disagreements , the present study examines overt parent-adolescent dyadic hostility. This specification is important given that scholars suggest that overtly hostile parent-adolescent conflict, not the mere presence or content of disagreement, are likely to be the most salient predictors of negative youth outcomes (Adams & Laursen, 2007; Laursen & Collins,

1994; Smetana et al., 2006; Steinberg & Silk, 2002). Previous research is also largely limited by cross-sectional designs. Therefore, adolescent, parent, coparental, and family-level variables are examined in the same model as predictors of future levels and changes in parent-adolescent hostility. Furthermore, fathers are frequently excluded from studies of two-parent families. This study examines the predictors of subsequent parent-adolescent hostility within a sample of 416 two-parent families (Wave 1), utilizing separate mother-youth and father-youth models and a longitudinal design.

I now present a literature review that discusses adolescent fear of negative evaluation, parental intrusiveness, coparental support, and family cohesion as relevant adolescent, parent, coparental, and family level predictors of subsequent parent-adolescent dyadic hostility.

Adolescent Fear of Negative Evaluation

Early adolescence is a developmental period of changes and transitions. During early adolescence many youth transition into middle school and must navigate changes in school and social environments, as well as school and familial relationships, all of which are concurrently experienced with the onset of puberty (Niehaus, Rudasill, & Rakes, 2012). Considering the numerous changes that occur during early adolescence, the ability of adolescents and their families to adapt to changes, transitions, and disturbances in typical routines during early adolescence is crucial for maintaining balance among family subsystems.

Theoretically, Bowen's family systems perspective suggests that lower adaptability of family systems reflects lower levels of differentiation. At higher levels of adaptability, differentiation is defined as a balanced interplay of individuality and togetherness in relationships, and thoughts and feelings among individuals, particularly

within family systems. Well-differentiated individuals and families maintain connection with, but are not dependent on, other members of the family system to function. Well-differentiated individuals and families have developed a clear sense of self that thinks, feels, and behaves autonomously (Bowen, 1978; Kerr & Bowen, 1988).

During early adolescence, many youth are still engaging in the process of differentiating themselves from and within their family system. Many youth during early adolescence are still dependent on their parents for everyday needs, and have only begun to think, believe, and behave autonomously. Additionally, many parents of early adolescents are only beginning to learn how to allow their child to function independently and autonomously. Importantly, Bowen's family systems perspective suggests that limited differentiation results in feelings of uncertainty about self, feelings of inadequacy, and fears about social rejection (Bowen, 1978). Consistent with this idea, scholars suggest that adolescents "place increasing importance on how peers, friends, and adults perceive them and how they 'come across' in their social interactions with them" (Ollendick & Hirshfeld-Becker, 2002, p. 44). Empirically, research also suggests that adolescence is marked by increases in fears of negative evaluation (Westenberg, Gullone, Bokhorst, Heyne, & King, 2007), and highlights that fears of negative evaluation might be particularly salient and important to examine during early adolescence and the transition into middle school. The present study defines fear of negative evaluation as worry and concern about real or imagined negative opinions of others and rejection in social settings and interactions (Mallot, Maner, DeWall, & Schmidt, 2009).

Concurrent with the struggles that are associated with the process of differentiation, family systems theory suggests that fears of rejection and inadequacy promote hostile behaviors (Bowen, 1978; Kerr & Bowen, 1988). Research supports this

proposition, finding that social anxiety that is characterized by fears of negative evaluation is associated with expressed hostility (Hawkins & Cougle, 2011), and socially anxious individuals express hostility and anger significantly more than nonanxious controls (Erwin, Heimberg, Schneier, & Liebowitz, 2003). Other studies, although sparse, have more specifically examined fears of negative evaluation. These studies suggest that fears of negative evaluation are correlated with hostility (Erwin et al., 2003), and are associated with increased perceptions of hostility during social interactions (DeWall, Buckner, Lambert, Cohen, & Fincham, 2010), less prosocial behavior (Maner, DeWall, Baumeister, & Schaller, 2007), and among adolescents, increased social and overt aggression (Loukas, Paulos, & Robinson, 2005). Research has also found an association between imagined rejection and hostility (Leary, Twenge, & Quinlivan, 2006). Thus, theoretically and empirically, youths' fear of negative evaluation from peers and nonfamilial adults may be associated with youths' expressed hostility in social interactions.

Extending these findings to youths' functioning within family systems, family systems theory suggests that individual subsystems affect the functioning of other family subsystems (e.g., parent-youth subsystem). More specifically, Kerr and Bowen (1988) propose that individual fears and anxiety can spill over into other family subsystems, and increase the likelihood that other family members will also engage in hostile behaviors. Therefore, youths' anxious fears of negative evaluation from peers and nonfamilial adults may spill over into the parent-adolescent subsystem, creating more anxiety that promotes hostility between parents and adolescents. Empirically, however, few studies have examined youth psychosocial functioning as a predictor of parent-youth relations (Huges & Gullone, 2008). Furthermore, despite evidence suggesting that youths' fears of

negative evaluation are associated with increases in hostile thoughts and behavior, research to date has not specified whether hostility that is associated with fear of negative evaluation is expressed on an individual level or as a dyadic interchange between relationship partners. Sparse research has found that among parent-child dyads, parents of children with anxiety diagnoses express more negative tone (Suveg et al., 2008) and are less positive and encouraging (Hudson & Rapee, 2000) during observed parent-child interactions than parents of children without anxiety diagnoses. Similarly, anxious youth express less positive affect during discussions with mothers and fathers than youth without anxiety disorders (Suveg et al., 2008). However, to the author's knowledge, studies of dyadic parent-youth interactions are limited to examinations of youth anxiety disorders and symptoms, and have not specifically examined youth fear of negative evaluation in a community-based sample and from a developmental (rather than clinical) perspective.

Guided by the results of previous research and the propositions within Bowen's family systems theory, the present study builds on previous literature by examining adolescent fear of negative evaluation during 6th grade as a predictor of subsequent parent-adolescent hostility within a community sample of adolescents. The present study hypothesizes that adolescent fear of negative evaluation is positively associated with later parent-adolescent hostility.

Parental Intrusiveness

Given that early adolescence is a developmental period during which youth are beginning to differentiate themselves from their parents, the permeability of the boundaries between youth and their parents may change. According to family systems theory, changes in boundary permeability may affect the flow of information between

adolescents and their parents. Changes in adolescent autonomy and individuation (Steinberg, 2001) may be reflected in more closed (relatively) boundaries between adolescents and their parents. However, research suggests that parents and adolescents may not agree on these boundaries. Although adolescents and parents tend to agree on setting limits for adolescent safety, social conduct, and morality issues, adolescents believe parents should have significantly less authority regarding issues located in youths' personal domain (Fuligni, 1998). In contrast, parents report that all domains, including youths' personal domain, are within their authority (Smetana & Asquith, 1994). Adolescents' personal domains include their appearance, feelings, and the framing of their identity (Sorkhabi, 2010).

Parental regulation of adolescents' appearance, feelings, and framing of their identity reflect psychologically intrusive tactics. Psychological intrusiveness is similar to psychological control, which is defined as inhibiting emotional autonomy and expression through the use of love withdrawal, guilt induction, and manipulative tactics. Importantly, this is contrasted with behavioral control, which includes monitoring, supervision, and behavioral regulation (Barber, 1996). In the present study, indicators of psychological intrusiveness include privacy invasion and parents' manipulation of youths' thoughts and feelings. Adolescents may view parental control over their personal domain as controlling and stifling their expression, emotions, and individuation. Smetana and Gaines (1999) suggested that this might lead to conflict, finding that parental psychological control was related to increases in both parent-adolescent disagreement and the anger associated with these disagreements. Additionally, adolescents cited parental intrusion into their personal domain as a justification for conflict with their parents (Smetana & Gaines, 1999). Similarly, Sorkhabi (2010) found that fathers' but not

mothers' regulation of adolescents' personal domains was associated with more father-adolescent disagreements. Research also suggests that adolescent perceived parental privacy invasion is positively related to parent-adolescent disagreement (Hawk, Keijers, Hale, & Meeus, 2009). Based on these findings, the current study hypothesizes that adolescent perceived parental intrusiveness is positively associated with later parent-adolescent hostility.

Coparental Support

Family systems theory suggests that in addition to the effects that individual subsystems have on the parent-adolescent subsystem, dyadic subsystems, such as the parental subsystem, also influence parent-adolescent relationships. One aspect of the parental subsystem is coparenting. Coparenting is a dyadic construct and has been defined in previous research as how parents work together, support each other, and share child-rearing responsibilities (Baril et al., 2007; Bonds & Gondoli, 2007; Feinberg et al., 2007). The current study utilizes this definition. However, research that examines the relationship between coparenting and the parent-child relationship is limited. Furthermore, research has primarily focused on coparenting when parents have young infants or children; research that has investigated coparenting among families with adolescent children is sparse (Baril, Crouter, & McHale, 2007).

The importance of examining coparenting during adolescence is demonstrated by research suggesting that parents with young children engage in significantly more coparental cooperation than parents with adolescents (Margolin, Gordis, & John, 2001). Furthermore, the few studies that have examined coparenting within families with adolescents have found significant associations between coparenting conflict and increases in father negativity (Feinberg, Kan, & Hetherington, 2007). Additionally,

coparenting has been found to be a mediator in the relationship between marital adjustment and mothers' self-reported warmth (Bonds & Gandoli, 2007) and general measures of parenting practices (Margolin et al., 2001). These studies suggest that coparenting affects how parents relate to their adolescent children. Based on family systems theory and extant empirical findings, the present study hypothesizes that coparental support is negatively associated with later parent-adolescent hostility.

Family Cohesion

Although the emphasis thus far has been on the subsystems within the family system, the unified family system also has important implications for subsystem functioning (e.g., parent-adolescent relations). Family systems theory suggests that the family system must be considered as a factor in the functioning of its subsystems; therefore, it is crucial to examine family-level constructs as predictors of subsystem functioning. One family-level construct is family cohesion, which is defined as supportiveness and cooperation within the family unit (Richmond & Stocker, 2006). Theoretically, family cohesion reflects a balance of individuality and togetherness within the family system. Less balance promotes more hostility among family members (Bowen, 1978; Kerr & Bowen, 1988). During adolescence, youth and families are still establishing a balance between individuality and togetherness, which may result in more familial perturbations.

Generally, research suggests that family cohesion is positively related to beneficial outcomes, including enhanced family and individual psychological well-being (Farrell & Barnes, 1993). Furthermore, examination of cohesion and conflict within families suggests that among families with adolescents, hostility and conflict increase and cohesion and warmth decrease from early to mid-adolescence (Conger & Ge,

1999). However, to the author's knowledge, only a few studies have examined the *association between* family cohesion and parent-adolescent hostility. Rather, many scholars examine family cohesion and conflict together as inverse predictors or outcomes. The present study examines family cohesion as a predictor of later parent-adolescent hostility.

Empirically, Richmond and Stocker (2006) found a negative correlation between family cohesion and mother-youth and father-youth dyadic hostility. Similarly, Kerig (1995) found that children who identified their families as cohesively structured, as compared to other family structures, reported the least negative affect toward and from their parents (mothers and fathers). Children who identified their families as cohesively structured also reported the least negative relationship quality with their fathers. In terms of hostility, research has found significant cross-sectional associations between family cohesion and parent-adolescent anger during disagreement (McKinney & Renk, 2011). Longitudinal associations have also been found among negative family interactions and subsequent negative problem-solving and parent-adolescent disagreements (Reuter & Conger, 1995). Based on family systems theory and empirical findings, the present study hypothesizes that family cohesion is negatively associated with subsequent parent-adolescent hostility.

Youth Gender

Research linking adolescent fear of negative evaluation, parental intrusiveness, coparental support, and family cohesion to parent-adolescent hostility or other subsequent outcomes has provided some support for differential associations for among sons and daughters. Generally, scholars suggest that girls' stronger relationship orientation may increase the availability of emotional support, but also place girls at

heightened risk for more conflict and hostility in relationships (Davies & Lindsay, 2004). Likewise, McGue et al. (2005) found that youth perceptions of parent-child relationship quality decreased across early adolescence significantly more for girls than boys. Research also suggests that girls are more concerned with their peer and nonfamilial relationships and experience significantly more fear of negative evaluation from peers and nonfamilial adults than boys (Westenberg et al., 2005), but research examining the association between fear of negative evaluation and parent-adolescent hostility has seldom examined gender differences. Girls and boys may also experience parenting behaviors differently, with research finding that perceptions of parental psychological control were associated with more delinquent behavior among girls, but not boys (Pettit et al., 2001). Regarding the coparental relationship, research suggests that in the context of coparental conflict, parents are more negative with daughters than sons (Feinberg et al., 2007) and daughters express more hostility than sons in reaction to interparental conflict (Schulz, Waldinger, Hauser, & Allen, 2005). Daughters and sons may also react differently to changes in the family system. Scholars suggest that daughters experience higher levels of negative individual and social outcomes than sons in response of changes in family support (Fischer, Munsch, & Greene, 1996), and associations between family cohesion and angry parent-adolescent disagreements might be stronger for daughters than sons (McKinney & Renk, 2011). Thus, the present study hypothesizes that associations among 6th grade adolescent fear of negative evaluation, parental intrusiveness, coparental support, family cohesion, and 8th grade parent-adolescent hostility are significantly stronger for daughter-parent hostility than for son-parent hostility.

Limitations of Previous Research

Overall, existing research regarding the predictors of parent-adolescent dyadic hostility has been largely limited to correlational and cross-sectional examinations that have not allowed for the assessment of time-ordered associations. Additionally, much of the research examining parent-adolescent conflict or hostility has been limited to single reporters of conflict or hostility, and examinations of father-adolescent relationships have been sparse.

In sum, the present study fills these gaps, and therefore makes significant contributions to the literature. First, by going beyond the cross-sectional designs of previous research, this study predicts subsequent parent-adolescent hostility through the utilization of prospective and change-ordered designs. Second, parent and adolescent reports of hostility are utilized and examinations of mother-youth and father-youth dyadic hostility are included. Finally, using family systems theory as a framework, this study examines individual youth and parent, coparental, and whole-family constructs as predictors of subsequent parent-adolescent conflict; the first study known to the author to utilize this model. Referencing family systems theory concepts of the individual adolescent and parent subsystems, and the parent dyad and family systems, this study examines adolescent fear of negative evaluation, parental boundary intrusion, coparental support, and family cohesion at 6th grade (Wave 1) as predictors of parent-adolescent hostility during 8th grade (Wave 3).

Summary of Hypotheses

Utilizing a prospective as well as a change-ordered design that controls for W1 parent-adolescent hostility, the present study hypothesizes that:

Hypothesis 1: Adolescent fear of negative evaluation at 6th grade (early adolescence) is positively associated with parent-adolescent hostility at 8th grade (middle adolescence).

Hypothesis 2: Adolescent perceived parental intrusiveness at 6th grade is positively associated with parent-adolescent hostility at 8th grade.

Hypothesis 3: Coparental support at 6th grade is negatively associated with parent-adolescent hostility at 8th grade.

Hypothesis 4: Family cohesion at 6th grade is negatively associated with parent-adolescent hostility at 8th grade.

Hypothesis 5: These associations are stronger for prediction of daughter-parent hostility than for prediction of son-parent hostility.

CHAPTER III

METHOD

Sampling Procedures and Characteristics

The sample utilized in this study was selected from a larger study that examined family life during youths' transition into adolescence (Buehler, 2006). The larger study began in 2001 and recruited adolescents from 13 middle schools in a southeastern United States county. Youth and their families were recruited through youths' 6th grade homeroom classrooms. In participating homeroom classrooms, youths were given a letter with information about the study to take home to their parents. In addition, two letters were mailed directly to parents. The mailed letter contained an addressed and stamped envelope to return consent forms. Of the 71% of families that returned consent forms, 80% agreed to participate in the study. The resulting sample was reasonably representative of the county in terms of race, parents' marital status, and family poverty status.

Families were eligible to participate in the longitudinal study if parents were married or long-term cohabitants and there were no step-children in the family. There were 1,131 families that fulfilled the study requirements and were invited to participate. Of those that were eligible to participate, 37% (416 families) agreed to join the study. According to analyses of the initial youth survey, eligible participating families were similar to eligible nonparticipating families on all study variables (Cook, Buehler, & Blair, 2012).

Participating youth were 11 to 14 years old and in 6th grade at Wave 1 (W1) (*M* = 11.86, *SD* = 0.69). Girls comprised 51% of the youth (*n* = 211). Participating families were 91% European American, and 3% were African American. African American participation was somewhat different than the percentage of married African American couples with children younger than 18 years old in the county (5%) and the United States (7.8%; U.S. Census Bureau, 2000a, Table PCT27 of SF4). On average, parents had earned an associate's degree, which is similar to county education statistics of European American adults over 24 years of age (U.S. Census Bureau, 2000b, Table P148A of SF4). For 2001, the median household income for families in this study was about $70,000, which is higher than the 1999 county-level median income ($59,548) for European American families (U.S. Census Bureau, 2000c, Table PCT40 of SF3; $64,689 inflation-adjusted dollars through 2001).

Data Collection Procedures

Data were collected via questionnaires and observations. Participants were asked to complete questionnaires once a year for four years. The first data collection was when youth were in 6th grade (W1). Questionnaires were completed again one year later when youth were in 7th grade (W2), and again when youth were in 8th (W3) and 9th (W4) grade. During W1 of data collection, youth completed questionnaires at school, and students were compensated with a pizza party. Youths' teachers also completed a questionnaire that focused on the child's behavior in school. Teachers received $5 for each completed questionnaire. Additional questionnaires were mailed to parents and youth to complete independently. During a yearly home visit, the completed mailed questionnaires were collected, and parents and youth completed another set of questionnaires. During the home visit, families also participated in four observed

interaction tasks. However, observational data were not utilized in the present study, and therefore are not discussed further. Families were compensated $100 for their participation at W1, $120 at W2, $135 at W3, and $150 at W4. Participation declined over time: 416 families participated at W1, 366 families participated at W2, 340 families at W3, and 320 families at W4 (77% retention of W1 families). However, analyses revealed that there were no significant differences between retained and families lost to attrition on any study variables in the larger study (Buehler, 2006).

Measures

The longitudinal research design utilized for this study examined mother-adolescent and father-adolescent relationships in separate models. Preliminary analyses examined the shared variance among mother-adolescent and father-adolescent hostility during 8th grade to determine if hostility was best examined as *parent*-adolescent hostility or separate mother-adolescent and father-adolescent hostility. These analyses indicated that although the correlation between mother-adolescent and father-adolescent hostility was relatively high (r = .66), the correlation was not high enough to indicate that mother-youth and father-youth hostility should be examined as one latent construct. Examining mother-adolescent and father-adolescent hostility as one construct of parent-youth hostility might obscure any associations that might be unique to these dyadic relationships, and so I chose to estimate separate models.

The independent variables of adolescent fear of negative evaluation, parental intrusiveness, coparental support, and family cohesion were assessed at W1 when youth were in 6th grade. The dependent variable of parent-adolescent hostility was assessed at W3 when most youth were in 8th grade. Change-oriented analyses also included a control for W1 parent-adolescent hostility. W1 measures were included

because 6th grade represents an important period of school transition, and consequently a period of important youth and family reconfigurations during adolescence. W3 data were included, and change-oriented analyses were conducted, in order to assess how parent-adolescent relations change across middle school as well as to assess how the ways in which families and adolescents manage and adapt to these transitions in 6th grade affect later parent-adolescent functioning during middle school.

Parent-Adolescent Hostility

Mother-youth and father-youth hostility were assessed separately in two models. Mother-youth and father-youth hostility each are latent constructs with four manifest variables.

Mother-adolescent hostility. Mother-adolescent hostility was assessed at W3 using youth and mother report on two measures. Change-oriented analyses also included an assessment of W1 mother-adolescent hostility. The first measure was the 7-item hostility subscale of the Iowa Youth and Families assessment protocol (Conger, Ge, Elder, Lorenz, & Simons, 1994). Youth reported on their own and their mothers' hostility. Mothers reported on their own and their youths' hostility. Hostile behaviors were rated on a 7-point response format (1 = *always to* 7 = *never;* reverse coded*).* A sample item was "Shout at him/her because you were upset with him/her." Cronbach's alpha for youths' reports of hostility towards mothers was .84. Cronbach's alpha for youths' reports of mothers' hostility was .88. Cronbach's alpha for mothers' reports of hostility toward youth was .88. Cronbach's alpha for mothers' reports of youths' hostility was .88. Youths' and mothers' reports of mothers' hostility towards youth were averaged into one score. Youths' and mothers' reports of youths' hostility towards mother were averaged into one

score. Higher scores indicated more hostility. The two composites were each used as a manifest indicator of mother-adolescent hostility.

Hostility also was assessed using youth and mother reports on a single-item (Harold, 1999). Youth and mothers responded to the example item, “I argue or disagree with my mom a lot” on a 5-point response format (1 = *strongly agree* to 5 = *strongly disagree*; reverse coded). Mother and youth reports on the single-item were used as the third and fourth manifest indicators of mother-youth hostility.

Father-adolescent hostility. Father-adolescent hostility was assessed at W3 using youth and father report on two measures. Change-oriented analyses also included an assessment of W1 father-adolescent hostility. The first measure was the 7-item hostility subscale of the Iowa Youth and Families assessment protocol (Conger, Ge, Elder, Lorenz, & Simons, 1994). Youth reported on their own and their fathers’ hostility. Fathers reported on their own and their youths’ hostility. Hostile behaviors were rated on a 7-point response format (1 = *always to* 7 = *never*; reverse coded*).* A sample item was “Shout at him/her because you were upset with him/her.” Cronbach alpha for youths’ report of hostility towards fathers was .83. Cronbach alpha for youths’ report of fathers’ hostility was .88. Cronbach alpha for fathers’ report of hostility toward youth was .85. Cronbach alpha for fathers’ report of youths’ hostility was .88. Youths’ and fathers’ reports of hostility toward youth were averaged into one score. Youths’ and fathers’ reports of hostility toward father were averaged into one score. Higher scores indicated more hostility. These two composites were each used as a manifest indicator of father-adolescent hostility.

Hostility also was assessed using youth and father reports on a single-item (Harold, 1999). Youth and fathers responded to the example item, “I argue or disagree

with my dad a lot" on a 5-point response format (1 = *strongly agree* to 5 = *strongly disagree*; reverse coded). Youth and father reports on the single-item were used as the third and fourth manifest indicators of father-youth hostility.

Youth Fear of Negative Evaluation

Youth fear of negative evaluation is a latent construct with five manifest indicators (i.e., individual items). Youths' fear of negative evaluation was measured at W1 using youth self-report on the 5-item fear of negative evaluation subscale from the Social Anxiety Scale for Children-Revised (SASC-R; La Greca & Stone, 1993). Youth indicated the frequency of social experiences on a 5-point response format (1 = *not at all* to 5 = *all the time).* A sample item was "I worry about what other kids think of me." Cronbach's alpha was .89.

Parental Intrusiveness

Parental intrusiveness is a latent construct with three manifest variables. Parental intrusiveness was measured at W1 using youth report on a 13-item measure that was adapted from existing measures of parental psychological intrusion (Barber, 1996; Bogenschneider, Small, & Tsay, 1997). This measure has not been validated by previous research; therefore, an exploratory factor analysis was conducted for youth report on mothers and fathers to assess the factor structure of the 13-item measure. After conducting several exploratory models and dropping tangential items involving role ambiguity and parental comparisons, factor analysis of the remaining six items that pertained to parental privacy invasion and psychological control loaded strongly onto one factor. Factor loadings were similar across youth report of mothers and fathers. Youth rated the frequency of statements regarding parental intrusive behavior on a 5-point response format (1 = *never* to 5 = *always*). A sample item of the revised 6-item

measure was “My dad/mom would look through my personal stuff even if I asked him/her not to.” Cronbach’s alphas were .76 for mothers and .73 for fathers. Two parcels were created to use as manifest indicators of mother and father intrusiveness by averaging the scores of three items. Levene’s test for equality of variances indicated that parcel variances were equivalent for the mother-youth model (Parcel 1: *SD* = .70; Parcel 2: *SD* = .66; *F* = 1.89, *p* = .169) and father-youth model (Parcel 1: *SD* = .64; Parcel 2: *SD* = .62; *F* = .11, *p* = .746).

Coparental Support

Coparental support is a latent construct with four manifest variables. Coparental support was measured at W1 using parent report on the cooperation subscale of the Coparenting Questionnaire (Margolin, 1992) and the compromise problem-solving scale subscale adapted from previous measures (Conflict Resolutions Scale, Gottman, 1994; The Conflicts and Problem-Solving Scales, Kerig, 1996; Rands, Levinger, & Mellinger, 1981). Coparental support was assessed as a dyadic construct; therefore, mother and father report were used in both mother-youth and father-youth models. The 5-item cooperation subscale asked mothers and fathers to rate how often their spouse engaged in behaviors on a 5-point response format (1 = *never* to 5 = *always*). A sample item was “Tells me a lot about this child.” Cronbach’s alpha was .81 for mothers and .78 for fathers. Coparental compromise was measured using parent report on themselves and their spouse. The 11-item measure asked parents to rate how often they and their spouse engaged in certain behaviors during marital disagreements on a 5-point response format (1 = *never* to 5 = *always*). A sample item was “Carefully listen to him or her.” Cronbach’s alpha was .87 for mothers and .86 for fathers. Cronbach’s alphas for reports on spouses were for .93 mothers and .92 for fathers.

Family Cohesion

Family cohesion is a single manifest variable. Family cohesion was assessed at W1 using mother report in the mother-youth model and father report in the father-youth model on a 5-item measure of family cohesion adapted from previous measures (Lansford, Ceballo, Abbey, & Stewart, 2001; Rossi & Rossi, 1990). Mothers and fathers indicated their level of agreement to statements about their family on a 5-point response format (1 = *strongly agree* to 5 = *strongly disagree*; reverse coded). Sample items included "Our family has fun together" and "Family members show love and concern for each other." Cronbach's alpha was .84 for mothers and .82 for fathers.

Problems measuring family cohesion as a latent variable. Originally, family cohesion was measured as a latent construct with two manifest indicators (i.e., mother report of family cohesion and father report of family cohesion). Examination of the factor loadings on the latent construct revealed that mother report factor loadings (.79 and .77 in the mother-youth and father-youth model, respectively) were significantly higher than the father report factor loadings (-.03. in the mother-youth and father-youth model). Additionally, measurement analyses revealed a high correlation between family cohesion and coparental support latent constructs (r = .84 and .86 in the mother-youth and father-youth model, respectively), suggesting discriminate invalidity between family cohesion and coparental support latent constructs.

Due to problems with family cohesion factor loadings and problems establishing adequate discriminate validity between family cohesion and coparental support latent constructs, mother and father reports of family cohesion were included in the structural models as manifest variables. Mother report of family cohesion was used in the mother model, and father report of family cohesion was used in the father model. Preliminary

analyses of the mother model revealed that the positive correlation between family cohesion and coparental support was reduced, although the correlation remained strong (r = .66). In the father model, there was a small, *negative* correlation between coparental support and family cohesion (r = -.05). Primary prospective analyses considered these preliminary results more carefully.

Analytic Procedures

Descriptive statistics were calculated using SPSS (version 20). Hypotheses were tested using structural equation modeling (SEM; Amos 20). Separate mother and father models were estimated. Three fit indices were used to assess the acceptability of each SEM model: the chi-square statistic, comparative fit index (CFI), and root-mean-square error of approximation (RMSEA). A nonsignificant chi-square statistic indicated good model fit. However, due to the large sample size, a significant chi-square was expected for most models. Therefore, other fit indices were examined (Byrne, 2001). Adequate model fit is indicated by CFI values of .90 to .95 (Byrne. 2001; Hu & Bentler, 1999) and RMSEA values ranging from .06 to .08 (Browne & Cudeck, 1993; Byrne). Good model fit is indicated by CFI values greater than .95 and RMSEA values less than .05 (Browne & Cudeck, 1993; Byrne, 2001; Hu & Bentler, 1999). The significance level for all estimates was set at $p < .05$.

Mother and father models were examined across sons and daughters using multiple-group SEM. However, before testing gender moderation, measurement invariance tests were conducted for prospective and change-oriented mother and father models. Fully constrained models were compared to models in which factor loadings were allowed to vary across sons and daughters. A significant change ($p < .05$) in the chi-square indicated that there was a difference in factor loadings across sons and

daughters. In order to specify group differences in factor loadings, critical ratios were examined. Critical ratios greater than 1.96 ($p < .05$) were used to indicate differences in factor loadings across sons and daughters.

Next, structural models were assessed for youth gender moderating effects. Two models were generated and compared. The first model constrained all parameters to be equal across groups. The second model allowed structural parameters to vary across the two groups. A significant change in chi-square indicated that gender differences in the unconstrained structural paths existed. In order to specify group differences, critical ratios were examined. Critical ratios greater than 1.96 ($p < .05$) were used to indicate potential youth gender differences.

CHAPTER IV

RESULTS

Preliminary Analyses

Descriptive statistics, including correlations, for the mother model are shown in Table 1. Descriptive statistics for the father model are shown in Table 2. Zero-order correlations were in the expected directions.

Measurement Equivalence across Daughters and Sons

To test for a selected aspect of measurement invariance, fully constrained models were compared to models in which factor loadings were allowed to vary across sons and daughters. Moderation analyses for the prospective mother ($\Delta\chi^2(11) = 15.22$, $p = .173$) and father ($\Delta\chi^2(11) = 18.08$, $p = .08$) models indicated that there was **not** a significant difference between the fully constrained models and the models in which factor loadings were allowed to vary across groups.

Factor loadings for the change-oriented models were also tested for invariance across sons and daughters. For the mother change model, results indicated that there was **not** a significant difference between the fully constrained model and the model in which factor loadings were allowed to vary across groups ($\Delta\chi^2(14) = 20.62$, $p = .112$). For the father change model, there was a significant difference between models ($\Delta\chi^2(14) = 33.63$, $p = .002$). Examination of the critical ratios suggested that three out of 15 factor loadings differed across sons and daughters. First, the factor loading from fear of negative evaluation to item 5 (in the model) was stronger for sons ($b = .87$, $\beta = .75$, $p < .001$) than daughters ($b = .68$, $\beta = .67$, $p < .001$). Second, the factor loading from

intrusiveness to parcel 2 was stronger for sons (b = 1.30, β = .90, p < .001) than daughters (b = 1.05, β = .86, p < .001). Third, the factor loading from to father-youth hostility at W3 to the composite of fathers' and youths' report of fathers' hostility at W3 was stronger for daughters (b = 1.09, β = .91, p < .001) than for sons (b = 1.00, β = .90, p < .001). In summary, differences were found only in the change-oriented father-youth model in 3 out of 19 factor loadings. These differences were small, and partial measurement equivalence was demonstrated. However, primary analyses also included sensitivity analyses that allowed these factor loadings to vary across sons and daughters. Sensitivity analyses determine how independent variables measured in different ways, such as allowing factor loadings to vary across sons and daughters, affect dependent variables. Allowing these factor loadings to vary did **not** change the structural paths.

Mother-Youth Model

Prospective Associations

Prospective analyses included youth fear of negative evaluation, parental intrusiveness, coparental support, and family cohesion during 6th grade and parent-youth hostility during 8th grade. The mother-youth model fit the data adequately ($\chi^2(95)$ = 281.06, p < .001, CFI = .938, RMSEA = .069). Youth fear of negative evaluation (b = .08, β = .15, p = .009) and mother intrusiveness (b = .18, β = .23, p < .001) during 6th grade were associated positively with 8th grade mother-youth hostility. Statistically significant associations were not found for coparental support or mother-reported family cohesion during 6th grade. Preliminary analyses indicated a strong correlation between coparental support and mother-reported family cohesion; therefore, it was likely that the shared variance between coparental support and mother-reported family cohesion reduced any

unique effects of coparental support on mother-youth hostility during 8th grade. Subsequently, mother-reported family cohesion was dropped from the model.

Results of the three-latent predictor variable model fit the data adequately ($\chi^2(84) = 252.62$, $p < .001$, CFI = .94, RMSEA = .07). Youth fear of negative evaluation ($b = .08$, $\beta = .15$, $p = .01$), mother intrusiveness ($b = .19$, $\beta = .24$, $p < .001$), and coparental support ($b = -.19$, $\beta = -.16$, $p = .01$) during 6th grade were significantly associated with 8th grade mother-youth hostility (see Figure 1). Overall, these associations did not differ across sons and daughters ($\Delta\chi^2(3) = 3.49$, $p = .322$). However, examination of the CRs indicated that the association between mother intrusiveness during 6th grade and 8th grade mother-youth hostility was different for daughters and sons. The association between mother intrusiveness during 6th grade and 8th grade mother-youth hostility was significant for daughters ($b = .31$, $\beta = .37$, $p < .001$) but not for sons ($b = .11$, $\beta = .14$, $p = .11$).

Change-Oriented Associations

The change-oriented analysis included a stability coefficient for 6th grade mother-youth hostility (see Figure 2). The model fit was adequate ($\chi^2(141) = 464.769$, $p < .001$, CFI = .917, RMSEA = .074). Only the stability coefficient was significant ($b = .83$, $\beta = .76$, $p < .001$), and the model did not differ across sons and daughters ($\Delta\chi^2(4) = 3.536$, $p = .472$).

Father-Youth Model

Prospective Associations

The prospective analysis included youth fear of negative evaluation, parental intrusiveness, coparental support, and family cohesion during 6th grade and 8th grade parent-youth hostility. The father-youth model fit the data adequately ($\chi^2(95) = 263.754$,

$p < .001$, CFI = .938, RMSEA = .065). Father intrusiveness ($b = .32$, $\beta = .35$, $p < .001$) and coparental support ($b = -.23$, $\beta = -.20$, $p = .001$) during 6th grade were significantly associated with 8th grade father-youth hostility. Significant associations were not found for youth fear of negative evaluation or father-reported family cohesion during 6th grade; therefore, father-reported family cohesion was dropped from the model. Dropping family cohesion from the model did not change path significance or beta values, and the model fit the data adequately ($\chi^2(84) = 248.897$, $p < .001$, CFI = .94, RMSEA = .069) (see Figure 3). Multi-group analysis indicated there were no significant differences between sons and daughters ($\Delta\chi^2(3) = 5.142$, $p = .162$).

Change-Oriented Associations

The change-oriented analysis included a stability coefficient for 6th grade father-youth hostility (see Figure 4). The model fit was adequate ($\chi^2(282) = 561.49$, $p < .001$, CFI = .911, RMSEA = .05). Only the stability coefficient was significant ($b = .79$, $\beta = .70$, $p < .001$). Multi-group analysis indicated that the model differed across daughters and sons ($\Delta\chi^2(4) = 13.726$, $p = .008$). Examination of the CRs suggested that two associations differed across daughters and sons. Father intrusiveness at 6th grade was associated negatively with father-daughter hostility ($b = -.18$, $\beta = -.19$, $p = .018$) and positively with father-son hostility ($b = .22$, $\beta = .24$, $p = .003$) during 8th grade. Additionally, the positive association between 6th grade father-youth hostility and 8th grade father-youth hostility was stronger for daughters ($b = .95$, $\beta = .82$, $p < .001$) than sons ($b = .62$, $\beta = .57$, $p < .001$). Given that preliminary analyses indicated three factor loadings were not equivalent across groups, an additional sensitivity analysis was

conducted that allowed these factor loadings to vary across sons and daughters. Allowing these factor loadings to vary did **not** change the structural paths.

CHAPTER V

DISCUSSION

Few studies have examined the longitudinal antecedents of parent-adolescent hostility, and even fewer have utilized strong theoretical frameworks or incorporated components of various family subsystems as predictors of this hostility. This study aimed to fill these gaps in previous research. Using family systems theory as a framework, adolescent fear of negative evaluation, parental intrusiveness, coparental support, and family cohesion were examined as predictors of subsequent parent-adolescent hostility. This study hypothesized that 6th grade adolescent fear of negative evaluation and parental intrusiveness are positively associated with, and coparental support and family cohesion are negatively associated with 8th grade parent-adolescent hostility. Two types of analyses were utilized. First, prospective analyses were conducted to assess the association between family systems predictors and subsequent parent-adolescent hostility. Second, change-oriented analyses were conducted in order to examine how family system predictors at 6th grade predicted *changes* in parent-adolescent hostility across middle school. Data from a sample of 416 two-parent families were analyzed and mother-adolescent hostility and father-adolescent hostility were examined in separate models.

Summary and Interpretation of Results

Adolescent Fear of Negative Evaluation

Prospective analyses provided partial support for the hypothesis that adolescent fear of negative evaluation from peers and nonfamilial adults during 6th grade is associated positively with parent-adolescent conflict during 8th grade. Adolescent fear of negative evaluation in 6th grade was associated significantly with mother-adolescent hostility (but not with father-adolescent hostility) during 8th grade. The findings from the mother-adolescent model are consistent with previous research that has found associations between fear of negative evaluation, either examined specifically or as a component of social anxiety, and hostility (DeWall et al., 2010; Hawkins & Cougle, 2011; Loukas et al., 2005). However, previous examinations have been largely limited to between-groups designs and/or designs that measure general ratings of hostility. Therefore, little evidence has specified whether hostility, anteceded by fear of negative evaluation, manifests in general behaviors or within specific relationships. As such, this study extends previous research by specifying that hostility, anteceded by fears of negative evaluation, may occur on a dyadic level and more specifically, that youth fear of negative evaluation may promote dyadic hostility within mother-adolescent relationships.

Early adolescents' fears of negative evaluation may spill over into the mother-adolescent but not father-adolescent relationships due to youths' less differentiated relationships with mothers than with fathers. Early adolescence is a developmental period in which youth are developing a sense of self while still maintaining almost complete dependence on parents for everyday basic needs. Theoretically, from a family systems perspective, the maintenance of balance between self and togetherness is termed differentiation (Bowen, 1978). Less differentiation creates feelings of uncertainty

and uneasiness that may spill over into other family systems and promote subsequent hostile behaviors. More specifically, early adolescents and their mothers may not have developed a balance between individuality and dependence, and the boundaries between mothers and adolescents may be more permeable than those between fathers and adolescents. Furthermore, due to more permeable boundaries and spillover within mother-adolescent relationships, mothers may develop worries and concerns about adolescent functioning during mother-adolescent interactions. In line with Bowen's (1978) suggestions, more worries and preoccupations within less differentiated relationships may lead to hostile behaviors.

In contrast to the results of the prospective analyses, change-oriented analyses indicated that adolescent fear of negative evaluation during 6th grade did not predict *changes* in parent-adolescent hostility *over and above* 6th grade parent-adolescent hostility. Associations were not significant for either mother-adolescent or father-adolescent relationships. Thus, change-oriented analyses elucidate that adolescent fear of negative evaluation *at 6th grade* does not predict changes in parent-adolescent hostility across middle school. However, the change-oriented analyses in this study only utilize two time points, and it is unclear how these relationships may unfold across middle school. In contrast, cross-lagged analyses would elucidate the direction of effects between adolescent fear of negative evaluation and parent-adolescent hostility across multiple times points.

Parental Intrusiveness

Prospective analyses also provided support for the hypothesis that parental intrusiveness during 6th grade is associated positively with parent-adolescent hostility during 8th grade. Associations were significant for both mother-adolescent and father-

adolescent relationships. These findings are consistent with previous research that has found parental intrusiveness (i.e., psychological control) is associated with parent-adolescent disagreement and anger (Hawk et al., 2009; Smetana & Gaines, 1999; Sorkhabi, 2010).

The results can be interpreted in light of previous research that has found that some parents believe that all adolescent domains, including their personal domain (e.g., identity development, privacy) are within their jurisdiction (Smetana & Asquith, 1994). In contrast to parents' views, adolescents tend to believe that parents should have less authority related to their personal domain (Fulligni, 1998). Thus, parents and adolescents may have varying views over parental authority regarding the adolescent personal domain. As such, parental intrusiveness may constitute parental boundary violations of the adolescent subsystem. Additionally, parents' intrusive behavior may demonstrate disregard and disrespect for the changing boundaries in the parent-adolescent relationship. Consequently, the tension and opposing opinions regarding adolescent boundaries serve to promote dyadic-hostility in parent-adolescent relationships.

In contrast to the prospective findings, change-oriented analyses found that parental intrusiveness during 6th grade did not predict changes in mother-adolescent or father-adolescent hostility over and above 6th grade levels of mother-adolescent or father-adolescent hostility. This study is an important addition to previous research that has examined the associations between parental intrusive behavior and parent-adolescent disagreement because it demonstrates that intrusiveness at 6th grade does not predict changes in hostility, therefore calling into question how associations might unfold over time. Thus, it is possible that intrusiveness, examined at a different age,

might predict subsequent parent-adolescent hostility, or alternatively, that parent-adolescent hostility might predict subsequent parental intrusiveness.

Coparental Support

The present study also hypothesized that coparental support during 6th grade is negatively associated with 8th grade parent-adolescent hostility. Results supported this hypothesis and indicated that the negative association was significant for both mother-adolescent (in the three latent-predictor model) and father-adolescent relationships. Results are also consistent with previous research that has found associations among coparenting behaviors and parent behaviors, such as father negativity (Feinberg et al., 2007) and maternal warmth (Bonds & Gondoli, 2007). However, previous research has not examined how coparental support is associated with dyadic, parent-adolescent hostility.

Support, or lack thereof, which is modeled between parents, may serve as a framework for other familial behaviors and interactions, specifically those between parents and their early adolescent children. Theoretically, family systems theory suggests that the coparental system may affect the parent-adolescent subsystem. Parental relationships that are uncooperative and unsupportive regarding childrearing may affect parents' behavior with their children and spill over into the parent-adolescent relationship. Adolescents are also observers of parents' behavior with each other, including how they compromise and support each other (Minuchin, 1985). As such, coparental relationships that are characterized by cooperation and sharing in childrearing may model and establish a pattern of supportive, cooperative relationships among other subsystems within the family, such as parent-adolescent relationships.

In contrast to the prospective findings, change-oriented analyses found that coparental support during 6th grade did not predict changes in mother-adolescent or father-adolescent hostility over and above 6th grade levels of mother-adolescent or father-adolescent hostility. However, although coparental support *at* 6th grade is not a significant predictor of changes in parent-adolescent hostility, it is unclear how associations might unfold over time, across multiple time points. Although future research needs to clarify these how these associations unfold over time, this study adds to the sparse research on coparenting during early adolescence and is an improvement over previous literature that has mainly examined parent behavior, rather than dyadic, parent-adolescent exchanges, as outcomes of coparenting.

Family Cohesion

Prospective analyses did not provide support for the hypothesis that family cohesion during 6th grade is negatively associated with 8th grade parent-adolescent hostility. Results were consistent across mother-adolescent and father-adolescent models. As such, family cohesion was dropped from mother-adolescent and father-adolescent models and subsequent change-oriented analyses. Results were not consistent with previous research that has found that family cohesion is associated with less negative parent-adolescent affect (Kerig, 1995) and less angry parent-adolescent disagreements (McKinney & Renk, 2011). This extant research, however, did not also include measures of coparenting relationships that may account for some of the family-level systemic associations, at least in terms of mother-adolescent hostility. However, the current findings need to be interpreted with caution, because family cohesion was not measured using mother, father, *and* adolescent report.

Although significant associations were not found for mother-reported or father-reported family cohesion, preliminary findings regarding family cohesion may have important implications. Two results from preliminary analyses were particularly important. First, when family cohesion was examined as a latent construct with mother and father reports of family cohesion as manifest indicators, results indicated strong factor loadings for mother-reports of family cohesion, and extremely weak loadings for father-reports. Additionally, a paired sample t-test indicated that mothers' mean rating of family cohesion was very high (M = 4.31 out of 5) and significantly higher than fathers' mean rating (M = 2.72). Consequently, primary analyses examined mother-reported family cohesion and father-reported family cohesion as manifest indicators in separate models. Mothers' ratings of family cohesion may reflect social desirability bias. Mothers may feel more sensitive than fathers to how their family is portrayed. Furthermore, mothers may feel more responsible for the functioning of their families, and therefore feel a need to under report less than desirable reports of family functioning.

The second important finding for family cohesion was that analyses indicated a high covariance between coparental support and mother-reported family cohesion, indicating possible indiscriminate validity between these two constructs. In contrast, the covariance between father-reported family cohesion and coparental support was almost nonexistent. As such, mothers and fathers may experience different boundaries between their coparental subsystem and the whole family system. Mothers may have more permeable boundaries and, in contrast, fathers have less permeable boundaries between their coparental subsystem and their perceptions of the family system as a whole. Family systems theory suggests that experiences in one subsystem may influence experiences in another subsystem, and these influences depend on boundary

permeability. Thus, due to more boundary permeability, mothers' perceptions of the family system may be more subject to the influence of the experiences within the coparental subsystem; therefore, mothers' perceptions the family system and the coparental subsystem may be more difficult to distinguish.

Parent-Adolescent Hostility during 6th Grade

Among the change-oriented analyses, only one significant association was found. The stability coefficient of 6th grade parent-adolescent hostility was positively associated with 8th grade hostility in the mother-adolescent and father-adolescent models. Parent-adolescent hostility during 6th grade accounted for about 50% of the variance in 8th grade parent-adolescent hostility in the mother-adolescent and father-adolescent models. This suggests that previous parent-adolescent hostility is a salient predictor of future hostility; however, these results also indicate that there is about 50% unexplained variance to account for in changes in parent-adolescent hostility across middle school. Thus, it is conceivable that family systems variables other than the ones examined in the current study may account for changes in parent-adolescent hostility across early adolescence. Alternatively, it is possible that the independent variables, if examined at different ages, may be significant predictors of changes in parent-adolescent hostility. Furthermore, it is plausible that the examined family systems predictors, rather, are outcomes of preceding levels of parent-adolescent hostility. These explanations are addressed further in terms of limitations and directions for future research.

Adolescent Gender as a Moderator

Prospective analyses provided partial and minimal support for the hypothesis that associations between family systems predictors and parent-adolescent hostility would be

stronger for daughters than sons. The hypothesis was supported in the mother-adolescent model for only one association, in which the association between mother intrusiveness and mother-adolescent hostility was significant for daughters but not sons. Youth gender differences were not substantiated in the prospective father-adolescent model.

Generally, previous research has suggested that mother-daughter dyads may experience significantly more disagreements and angrier disagreements than mother-son dyads (Laursen, 2005; Laursen & Collins, 1994, 2009; Lundell et al., 2008). In contrast, another study, specifically examining privacy invasion, did not find youth gender differences; however this study was limited to reports on disagreements and did not assess the parent-adolescent hostility associated with these disagreements (Hawk et al., 2009). One possible explanation for the current results is that mothers may consider daughters' personal domain under their jurisdiction more than sons' personal domain. Previous research has found that daughters experience more rules regarding their personal domain than sons (Smetana & Asquith, 1994). Another explanation for these results is that girls, identifying more strongly with the same-sex parent, may feel the need to establish stronger boundaries between themselves and their mothers, which manifests in more mother-daughter hostility. However, it should be noted that other research has found that boys cite their personal domain as justification for parent-adolescent disagreement more than girls (Smetana & Gains, 1999). Future research will need to replicate these findings to develop stronger conclusions regarding youth gender differences.

Change-oriented analyses indicated two gender differences. First, a disordinal effect was found in which the effect of 6th grade father intrusiveness on 8th grade father-

youth hostility was opposite for daughters and sons (Howell, 2012). Father intrusiveness at 6th grade was associated *negatively* with 8th grade father-daughter hostility. In contrast, 6th grade father intrusiveness was associated *positively* with 8th grade father-son hostility. The result for father-daughter hostility should be interpreted with caution. The stability coefficient is comparable to a Pearson product-moment correlation between measurements of a variable at two points in time (Mrozcek, 2009). Thus, the value of the stability coefficient should be fairly similar to the zero-order correlations between 6th and 8th grade hostility. However, the stability coefficient for the daughter-father model was high (β = .82), particularly when considering that the zero-order correlations between 6th grade and 8th grade father-youth hostility were less than .65. Therefore, the finding that 6th grade father intrusiveness was negatively associated with 8th grade father-daughter hostility is suspect. The result for father-son hostility is more trustable, given the stability coefficient (β = .57) was consistent with the zero-order correlations. Similar to findings for the mother-youth prospective model, one possible explanation for this result is that boys may identify more strongly with the same sex parent, and thus feel a need to establish stronger boundaries between themselves and their fathers. Father intrusiveness during 6th grade may constitute boundary violations for sons that promote changes in father-son hostility across middle school. Previous research has found that boys cite their personal domain as justification for parent-adolescent disagreement more than girls (Smetana & Gains, 1999); however, results that are specific to father-son hostility have not been demonstrated in previous research. As such, these results should also be interpreted with caution and would benefit from replication in future research.

Change-oriented analyses also indicated that the association between 6th grade and 8th grade father-youth hostility was stronger for father-daughter dyads than father-

son dyads. These youth gender effects are somewhat consistent with previous research that indicates daughters experience more and angrier disagreements with parents than sons (Laursen, 2005; Laursen & Collins, 1994, 2009; Lundell et al., 2008); however, previous research has typically discussed greater daughter disagreement anger in terms of mother-daughter relationships. Previous research has not been able to generalize stronger associations for daughters to examinations of father-adolescent dyads because research that has examined specifically father-adolescent dyads is limited. Thus, this study adds to previous research and offers important parent-youth gender findings, particularly regarding father-youth relationships.

Although three youth gender differences were substantiated in this study, it is important to note that differences were not found for the other associations that were examined across mother-adolescent and father-adolescent prospective and change-oriented models. As such, this study adds to previous research by suggesting that adolescent daughters and sons, overall, have very similar experiences with their parents. Moreover, adolescent gender differences in parent-adolescent hostility, rather than general, may be specific to the parent of interest and particular issues within the family system.

Limitations and Future Research

Issues of Influence and Directionality

Significant prospective associations among family systems level predictors and parent-adolescent hostility two years later were found in this study. However, these findings are limited because prospective analyses do not allow for conclusions about directionality of effects or causality. As such, change-oriented analyses were conducted that examined family system level variables as predictors of changes in parent-

adolescent hostility, over and above previous levels of parent-adolescent hostility. In contrast to the prospective findings, these analyses indicated that adolescent fear of negative evaluation, parental intrusiveness, and coparental support at *6th* grade did not predict *changes* in parent-adolescent hostility across middle school over and above 6th grade levels of parent-adolescent hostility. However, the change-oriented analyses of the current study are limited in that only two time points were examined. Therefore, the current results do not elucidate how the influence and the directionality of these variables might unfold over longer periods of time. It is plausible that (a) the examined family systems predictors, rather, are outcomes of preceding parent-adolescent hostility, and/or (b) the examined family systems variables, if examined at different time points, might be significant predictors of future parent-adolescent hostility, over and above preceding levels.

Future research should build on the current study by examining family systems predictors using other analytic techniques, such as cross-lagged models. Cross-lagged examinations would elucidate a pattern of influence that emerges across adolescence. An example of a future model is illustrated in Figure 5. Although improvements can be made in future research, the current study utilized both prospective and change-oriented designs to examine the associations among family systems predictors and subsequent parent-adolescent hostility. This is an improvement over prior research that has mainly focused on cross-sectional examinations of parent-adolescent disagreements and hostility.

Measurement

The current study is also limited by methods. Attempts were made to reduce shared method variance through the use of both parent and youth report, and a strength

of the current study is that hostility was defined and measured as a dyadic construct, including both parent and youth reports of their own and each other's hostility. This is an improvement over prior research in the parent-adolescent conflict literature that has typically measured disagreement using single reporters (i.e., typically mom or youth). However, scholars suggest that families rate their relationships differently, and research suggests that adolescent reports tend to be more accurate, such that observer reports tend to match those of adolescents, not parents (Gonzales, Cauce, & Mason, 1996). Therefore, measurement may have been improved through utilization of observer ratings of parent-adolescent hostility.

Furthermore, the present study only utilized youth report of parental intrusiveness. Youth report might be more optimal than sole use of parent report, as parents may rate their parenting more positively and underreport their use of intrusive tactics (Barber, Stoltz, & Olsen, 2005). However, due to sole use of youth report on this construct, mono-method bias is a legitimate concern. Similarly, the present study was limited by its measurement of family cohesion. As previously discussed, due to measurement issues, family cohesion was measured by mother report in the mother-adolescent model and father report in the father-adolescent model. In this study, mother-reports of family cohesion may be indicative of social desirability bias. In light of these limitations, future research could be improved by employing a combination of youth, parent, and observer ratings of intrusive parenting and family cohesion as alternative measurement methods.

Sample

The generalizabilty of the findings of the current study are limited. The present study employed a sample of married families that were mostly European American.

More specifically, this study may not be relevant for families of different racial or ethnic groups and family structures. Some research suggests that parent-adolescent disagreements are not as prevalent among other racial or ethnic groups, although topics of disagreement tend to be similar (Barber, 1994; Schlegel, 1995). Additionally, scholars suggest "the broader cultural context in which adolescent-parent relationships occur would be expected to determine the types of issues and *specific ways in which conflicts are expressed*" (Smetana & Gaines, 1999, p. 1447). However, research that has specifically examined parent-adolescent hostility as a "specific way in which conflicts are expressed" across various cultural and ethnic contexts is sparse. Therefore, the prevalence of parent-adolescent hostility, as well as the family system factors that influence the occurrence of hostility, may vary across different cultural, racial, and ethnic groups.

Likewise, the results of the current study may vary depending on family structure. Sparse previous research comparing single and two-parent families has provided mixed evidence. Some findings suggest that divorced families experience angrier parent-adolescent disagreements than two-parent families (Forehand & Thomas, 1992). In contrast, other research has found that two-parent families experience angrier disagreements than divorced families (Smetana, Yau, Restrepo, & Brages, 1991). Parents and adolescents from two-parent families may have more opportunity to engage in mother-adolescent and father-adolescent dyadic-hostility, and those behaviors that predict hostility, than parent-adolescent dyads from single-parent or divorced families. Furthermore, divorce may bring multiple transitions and perturbations in the parent-adolescent relationship that may inherently change family systems; therefore, the family system predictors of parent-adolescent hostility may be different than those of two-

parent families. Overall, there is a dearth of research that has examined parent-adolescent hostility, and the family system predictors of this hostility, among varying ethnic groups and family structures. Future research should aim to fill this gap.

Alternative Predictors of Parent-Adolescent Hostility

In light of change-oriented analyses, it is also possible that other family system level predictors, other than those examined in this study, are important predictors of parent-adolescent hostility. For example, on an adolescent level, adolescent externalizing problems that include oppositional, deviant behaviors may create perturbations in the parent-adolescent relationship that manifest in subsequent dyadic hostility (Burt, McGue, & Krueger, 2005). However, externalizing problems were examined in the mother-adolescent and father-adolescent prospective models in a preliminary set of analyses (not reported above). In support of the current study, results indicated that youth fear of negative evaluation during 6th grade had stronger and significant effects in comparison to youth externalizing problems, which was not a significant predictor of mother-youth hostility during 8th grade.

On a parental level, high levels of parental support might be important buffers to subsequent hostility by establishing a parent-adolescent context that promotes conflict-resolution and perspective taking (Barrera & Stice, 1998). On a parent-dyad level, marital hostility may provide a framework for negative interactions among other familial subsystems, and the parent-adolescent relationship in particular (Gerard, Krishnakumar, & Buehler, 2006). On a family level, family flexibility might be particularly important during early adolescence, as flexibility may act to maintain balance and equilibrium among family systems during a developmental period that is characterized by multiple changes and transitions (Granic, Hollenstein, Dishion, & Patterson, 2003). As such,

future research should build upon this study and examine multiple family system predictors of parent-adolescent hostility.

Conclusion

This study sought to fill gaps in previous research by going beyond previous examinations of parent-adolescent disagreement, and rather, examined parent-adolescent dyadic hostility. Furthermore, this study adds to previous research by examining longitudinal family systems predictors of parent-adolescent hostility during middle school. A focus on the predictors of parent-adolescent hostility is important, given research suggests that callous, hostile parent-adolescent exchanges are associated with negative developmental outcomes for youth (Laursen & Collins, 1994; Smetana et al., 2006; Steinberg & Silk, 2002). Results of the prospective analyses indicated that the functioning among multiple family subsystems are important to examine during early adolescence as they may be important predictors of parent-adolescent hostility that has negative implications for youth well-being (Steinberg & Silk, 2002). Future research would benefit by employing observational reports of constructs and extending of the present study to examinations among various ethnic groups and family structures. Furthermore, in light of change-oriented results, future research should utilize cross-lagged examinations. Such examinations would serve to elucidate the pattern of influence among family system variables and parent-adolescent hostility that emerges across adolescence.

Table 1. Correlations and Descriptive Statistics for Mother-Youth Model

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1. Mom hostility 8th grade	-																
2. Youth hostility 8th grade	**.84**	-															
3. MR argue 8th grade	**.63**	**.67**	-														
4. YR argue 8th grade	**.56**	**.56**	**.47**	-													
5. Mom hostility 6th grade	**.60**	**.50**	**.38**	**.44**	-												
6. Youth hostility 6th grade	**.55**	**.62**	**.53**	**.45**	**.69**	-											
7. MR argue 6th grade	**.45**	**.46**	**.59**	**.35**	**.53**	**.67**	-										
8. YR argue 6th grade	**.30**	**.34**	**.26**	**.29**	**.46**	**.55**	**.39**	-									
9. YR fear of neg evaluation	**.16**	**.24**	**.13**	**.29**	**.22**	**.23**	**.11**	**.27**	-								
10. Intrusiveness Parcel 1	**.16**	**.23**	**.16**	**.13**	**.32**	**.36**	**.24**	**.34**	**.23**	-							
11. Intrusiveness Parcel 2	**.20**	**.23**	**.19**	**.16**	**.40**	**.37**	**.26**	**.34**	**.22**	**.69**	-						
12. MR cooperation	**-.11**	**-.11**	**-.16**	**-.17**	**-.14**	**-.17**	**-.18**	**-.15**	-.07	**-.12**	-.09	-					
13. FR cooperation	-.08	**-.09**	-.09	**-.18**	**-.24**	**-.23**	**-.21**	**-.14**	-.08	-.07	**-.16**	**.29**	-				
14. MR compromise	**-.12**	**-.13**	**-.11**	**-.11**	**-.27**	**-.27**	**-.24**	**-.18**	-.06	-.08	-.07	**.50**	**.32**	-			
15. FR compromise	**-.13**	**-.13**	-.09	**-.16**	**-.22**	**-.16**	**-.16**	**-.16**	-.06	.00	-.05	**.29**	**.54**	**.52**	-		
16. MR family cohesion	**-.15**	**-.17**	**-.16**	**-.20**	**-.34**	**-.40**	**-.36**	**-.21**	-.02	**-.15**	**-.16**	**.46**	**.37**	**.53**	**.33**	-	
17. Youth gender	-.06	-.03	-.05	**-.11**	.00	-.04	**-.10**	.05	-.02	.03	.09	.07	.07	-.04	-.04	.02	-
N	339	339	336	338	416	416	416	415	416	415	415	416	416	416	416	416	416
Minimum	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.20	2.40	2.05	2.23	2.00	0.00
Maximum	4.25	3.94	5.00	5.00	4.50	4.86	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	1.00
M	1.73	1.78	1.94	2.29	1.75	1.79	1.98	1.92	2.22	1.81	1.61	3.70	4.14	3.73	3.75	4.31	.49
SD	.51	.53	1.05	1.07	.54	.55	.99	.98	.88	.70	.66	.73	.57	.56	.52	.60	.50
Skewness	1.46	1.02	.91	.54	1.44	1.21	.97	.79	.49	1.04	1.53	-.17	-.32	-.01	-.02	-1.04	.03
Kurtosis	3.71	1.21	-.09	-.24	3.38	2.53	.48	-.11	-.13	1.43	3.47	-.17	-.40	-.10	-.11	.93	-2.01

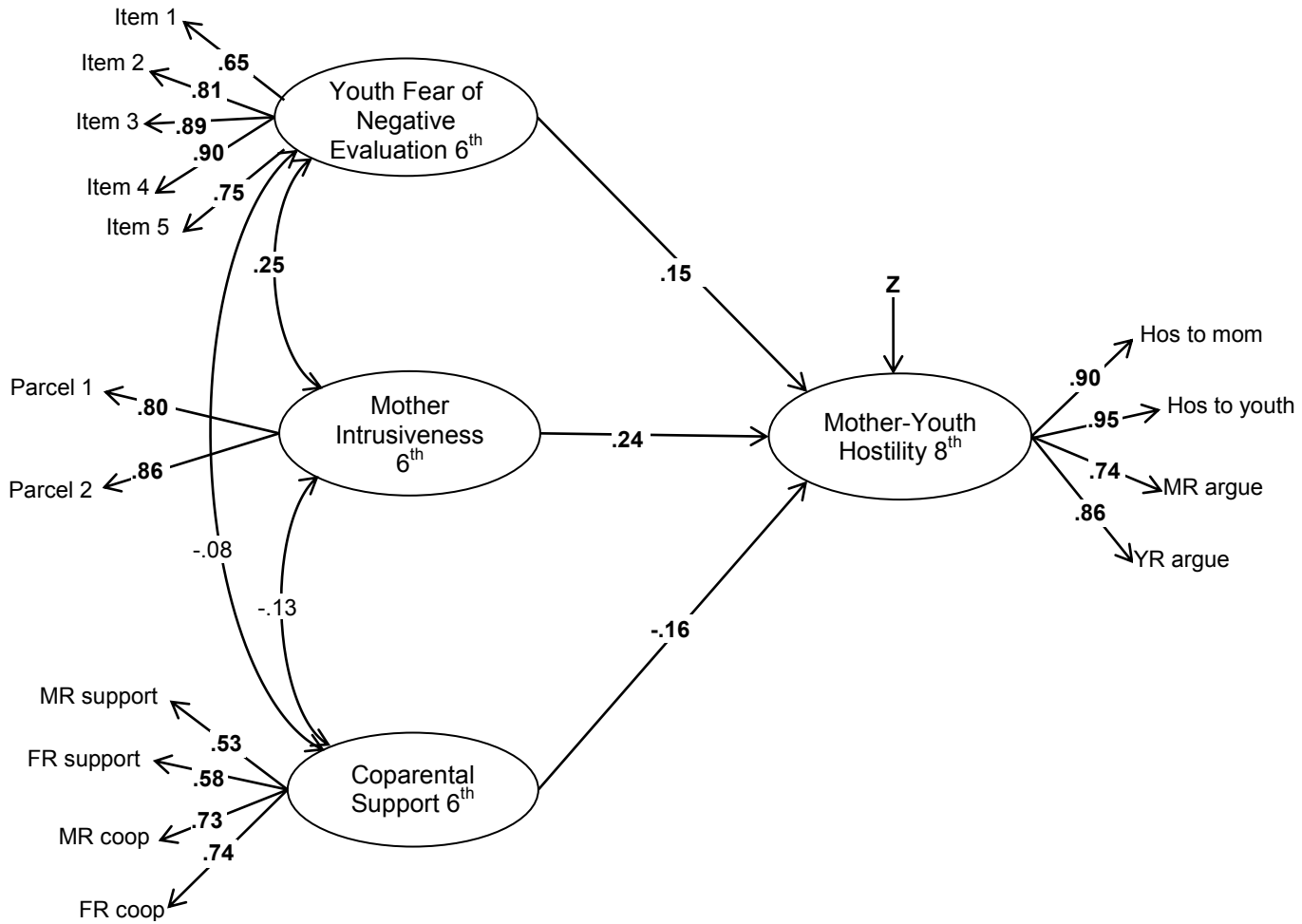
Note. MR = mother report, FR = father report, and YR = youth report. Bolded estimates are significant $p < .05$.

Table 2. Correlations and Descriptive Statistics for Father-Youth Model

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1. Dad hostility 8th grade	-																
2. Youth hostility 8th grade	**.85**	-															
3. FR argue 8th grade	**.63**	**.62**	-														
4. YR argue 8th grade	**.49**	**.48**	**.39**	-													
5. Dad hostility 6th grade	**.65**	**.60**	**.46**	**.35**	-												
6. Youth hostility 6th grade	**.59**	**.65**	**.48**	**.32**	**.78**	-											
7. FR argue 6th grade	**.50**	**.50**	**.58**	**.27**	**.59**	**.64**	-										
8. YR argue 6th grade	**.30**	**.32**	**.25**	**.32**	**.49**	**.49**	**.32**	-									
9. YR fear of neg evaluation	**.21**	**.24**	**.17**	**.21**	**.27**	**.21**	**.12**	**.17**	-								
10. Intrusiveness Parcel 1	**.27**	**.25**	**.23**	**.23**	**.38**	**.25**	**.23**	**.29**	**.23**	-							
11. Intrusiveness Parcel 2	**.32**	**.28**	**.18**	**.25**	**.43**	**.34**	**.23**	**.29**	**.26**	**.64**	-						
12. MR cooperation	-.07	-.08	**-.17**	**-.17**	**-.10**	**-.11**	**-.13**	**-.17**	-.07	-.08	-.05	-					
13. FR cooperation	**-.16**	**-.14**	**-.16**	**-.13**	**-.24**	**-.22**	**-.26**	**-.14**	-.08	-.09	**-.11**	**.29**	-				
14. MR compromise	**-.11**	**-.11**	**-.20**	**-.17**	**-.17**	**-.18**	**-.14**	**-.12**	-.06	**-.11**	-.04	**.50**	**.32**	-			
15. FR compromise	**-.17**	**-.13**	**-.18**	**-.13**	**-.24**	**-.19**	**-.21**	**-.11**	-.06	-.07	-.06	**.29**	**.54**	**.52**	-		
16. FR family cohesion	-.01	-.02	.02	.03	-.06	-.04	.00	-.01	-.02	-.03	-.07	-.05	**-.12**	.03	-.04	-	
17. Youth gender	**.12**	.06	**.14**	-.01	**.15**	.07	.01	.08	-.02	.09	**.19**	.07	.07	-.04	-.04	-.01	-
N	339	339	334	339	416	416	415	416	416	415	415	416	416	416	416	416	416
Minimum	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.20	2.40	2.05	2.23	1.80	0.00
Maximum	3.63	3.81	5.00	5.00	3.15	3.93	5.00	5.00	5.00	4.33	4.33	5.00	5.00	5.00	5.00	4.20	1.00
M	1.69	1.70	1.91	2.22	1.66	1.69	1.93	1.92	2.22	1.63	1.61	3.70	4.14	3.73	3.75	2.72	.49
SD	.47	.51	1.03	1.08	.43	.48	.91	.95	.88	.64	.62	.73	.57	.56	.52	.27	.50
Skewness	1.12	1.14	1.02	.62	.82	1.08	.78	.89	.49	1.26	1.26	-.17	-.32	-.01	-.02	-.20	.03
Kurtosis	1.75	1.66	.24	-.23	.55	1.92	-.09	.46	-.13	1.80	1.93	-.17	-.40	-.10	-.11	2.65	-2.01

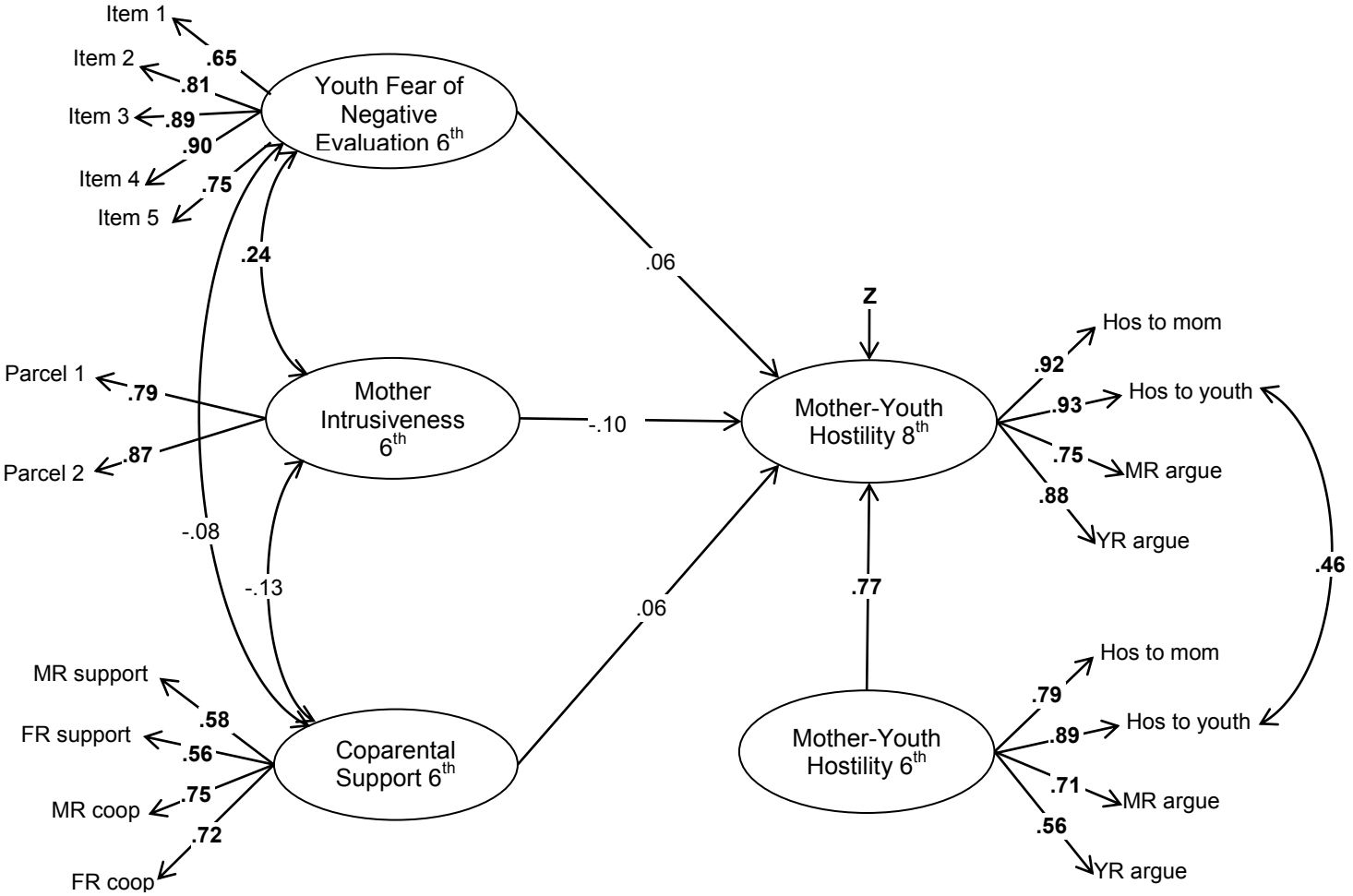
Note. MR = mother report, FR = father report, and YR = youth report. Bolded estimates are significant $p < .05$.

Figure 1. Mother-youth prospective model (youth 6th and 8th grade)



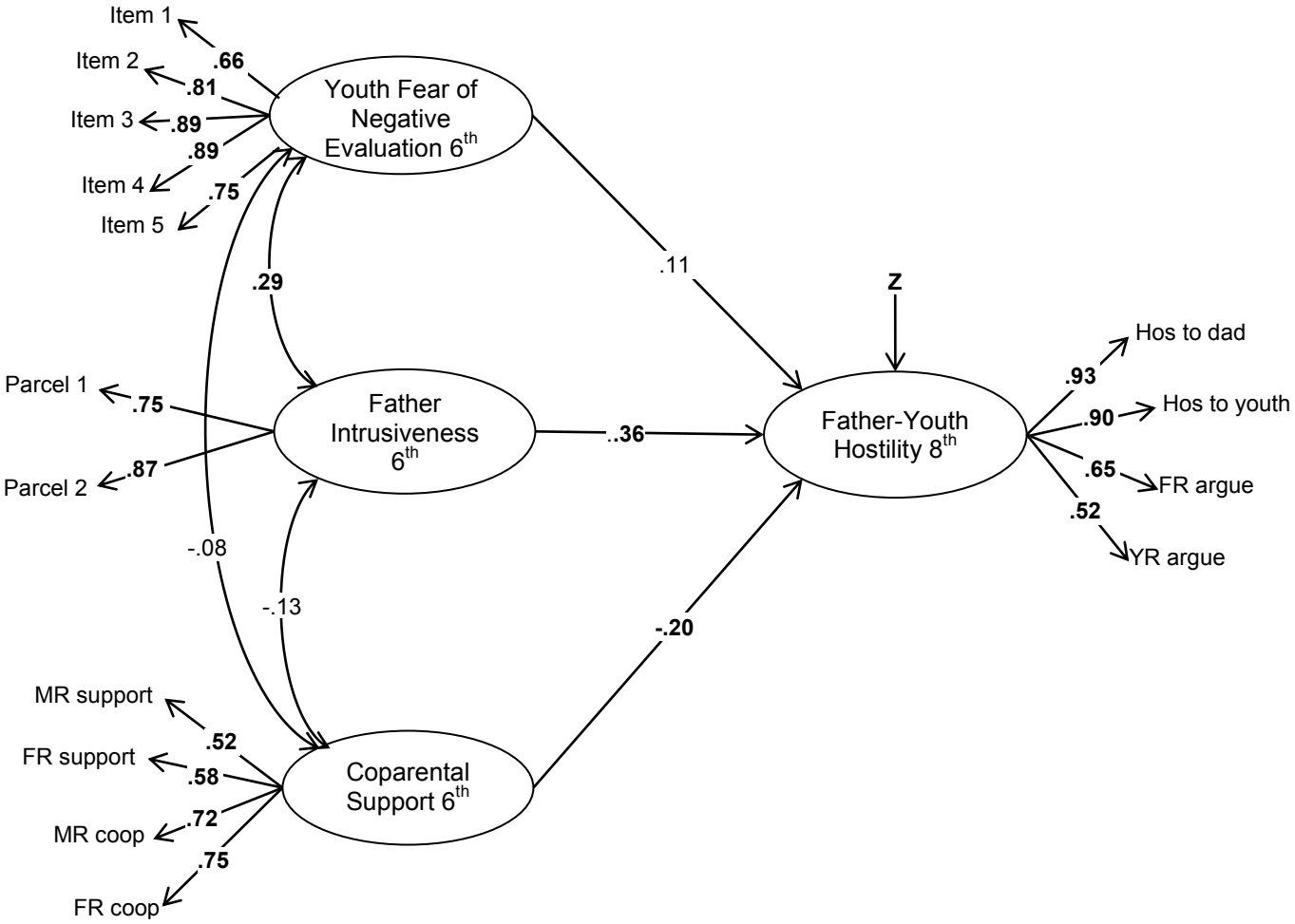
Note. MR = Mother report. FR = Father report. Hos = Hostility. Coop = Cooperation. Bolded estimates are significant at $p < 05$.

Figure 2. Mother-youth change-oriented model (youth 6th and 8th grade)



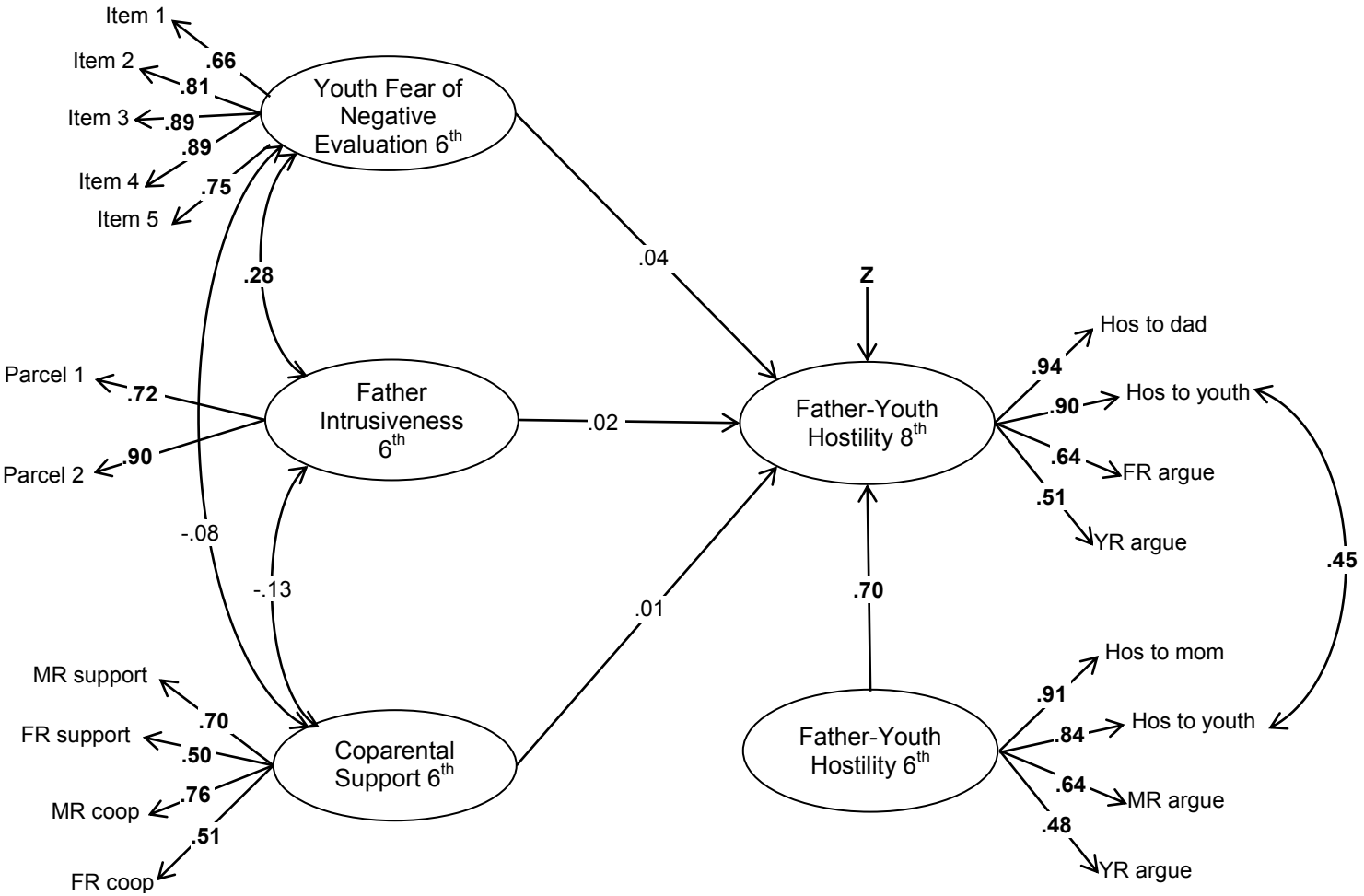
Note. Independent variables were covaried with 6th grade mother-youth hostility (not shown). MR = Mother report. FR = Father report. Hos = Hostility. Coop = Cooperation. Bolded estimates are significant at $p < 05$.

Figure 3. Father-youth prospective model (youth 6th and 8th grade)



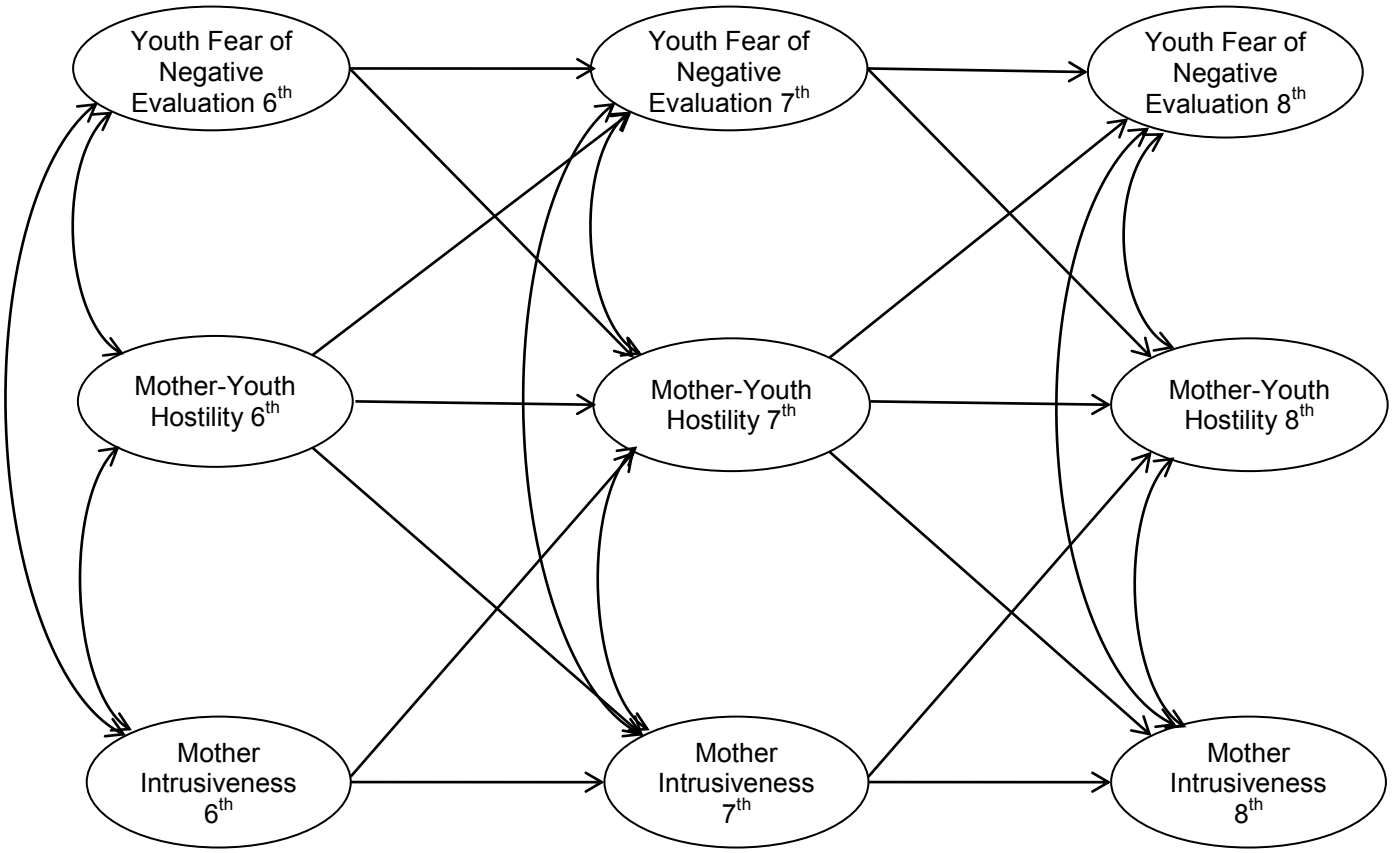
Note. MR = Mother report. FR = Father report. Hos = Hostility. Coop = Cooperation. Bolded estimates are significant at $p < 05$.

Figure 4. Father-youth change-oriented model (youth 6th and 8th grade)



Note. Independent variables were covaried with 6th grade father-youth hostility (not shown). MR = Mother report. FR = Father report. Hos = Hostility. Coop = Cooperation. Bolded estimates are significant at $p < 05$.

Figure 5. Example of cross-lagged model



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APPENDIX A

MEASURE ITEMS

Parent-Adolescent Hostility

Youth, mothers, and fathers completed the following items from the Iowa Youth and Families assessment protocol (Conger, Ge, Elder, Lorenz, & Simons, 1994).

Report on own hostility

1. Get angry at him/her.
2. Criticize him/her or his/her ideas.
3. Shout at him/her because you were upset with him/her.
4. Get into an argument with him/her.
5. Argue with him/her whenever you disagreed about something.
6. Insult or swear at him/her.
7. Call him/her bad names.

Report on others' hostility

1. Get angry at you.
2. Criticize you or your ideas.
3. Get into an argument with you.
4. Shout at you because he/she was upset with you.
5. Argue with you whenever you disagreed about something.
6. Insult or swear at you.
7. Call you bad names.

Response scale: (reverse scored) 1 = *always*; 2 = *almost always*; 3 = *fairly often*; 4 = *about half*; 5 = *not too often*; 6 = *almost never*; 7 = *never*

Source:

Conger, R. D., Ge, X., Elder, G. H., Lorenz, F. O., & Simons, R. L. (1994). Economic stress, coercive family process, and developmental problems of adolescents. *Child Development*, *65*, 541-561. doi:10.2307/1131401

Mothers and fathers reported on a single item assessing arguing/disagreeing (Harold, 1999).

1. This child and I argue or disagree a lot.

Response scale (reversed scored) 1 = *strongly agree*; 2 = *agree*; 3 = *neutral/mixed*; 4 = *disagree*; 5 = *strongly disagree*

Youth reported on a single item assessing arguing/disagreeing (Harold, 1999).

1. My mom/dad and I argue or disagree a lot.

Response scale (reverse scored) 1 = *strongly agree*; 2 = *agree*; 3 = *neutral/mixed*; 4 = *disagree*; 5 = *strongly disagree*

Source:
Harold, G. (1999). Personal communication.

Adolescent Fear of Negative Evaluation

Youth completed the following five items from the Social Anxiety Scale for Children-Revised (SASC-R; La Greca & Stone, 1993).

3. I feel that other kids talk about me behind my back. (item 1 in figure)
5. I worry about what other kids think of me. (item 2 in figure)
6. I'm afraid that other kids will not like me. (item 3 in figure)
8. I worry that other kids don't like me. (item 4 in figure)
10. I feel that kids are making fun of me. (item 5 in figure)

Response scale: 1 = *not at all;* 2 = *hardly ever*; 3 = *sometimes*; 4 = *most of the time*; 5 = *all the time*

Source:
La Greca, A. M., & Stone, W. L. (1993). Social Anxiety Scale for Children—Revised: Factor structure and concurrent validity. *Journal of Clinical Child Psychology*, *22*, 17-27. doi:10.1207/s15374424jccp2201_2

Parental Intrusiveness

Youth reported on the following six items for mothers (Barber, 1996):

1. My mom would look through my personal stuff even if I asked her not to.
2. When my mom is upset about something, she also gets upset with me.
3. My mom doesn't like it if I keep anything private from her.
4. My mom wants me to think and feel the same as her.
7. My mom looks through my personal stuff without asking me.
8. My mom makes me feel bad if I disagree with her.

Response scale: 1 = *never*; 2 = r*arely*; 3 = *sometimes*; 4 = *usually*; 5 = *always*

Youth reported on the following six items for fathers (Barber, 1996):

1. My dad would look through my personal stuff even if I asked him not to.
3. When my dad is upset about something, he also gets upset with me.
5. My dad doesn't like it if I keep anything private from him.
7. My dad wants me to think and feel the same as him.
12. My dad looks through my personal stuff without asking me.
13. My dad makes me feel bad if I disagree with him.

Response scale: 1 = *never*; 2 = r*arely*; 3 = *sometimes*; 4 = *usually*; 5 = *always*

Source:
Barber, B. K. (1996). Parental psychological control: Revisiting a neglected construct. *Child Development*, *67*, 3296-3319. doi: 10.2307/1131780

Coparental Support

Mothers and fathers responded to the following items about their spouse from the cooperation subscale of the Coparenting Questionnaire (Margolin, 1992):

1. Tells me a lot of things about this child.
2. Fills me in on what happens during this child's day.
3. Says nice things about me to this child.
4. Asks my opinion on issues related to parenting.
5. Shares the burden of discipline.

Response scale: 1 = *never*; 2 = *rarely*; 3 = *sometimes*; 4 = *usually*; 5 = *always*

Source:
Margolin, G. (1992). *Coparenting Questionnaire*. Unpublished instrument, University of Southern California, Los Angeles.

Mothers and fathers reported on their self and their spouse on the following 11 items from the compromise problem-solving scale (Conflict Resolutions Scale, Gottman, 1994; The Conflicts and Problem-Solving Scales, Kerig, 1996; Rands, Levinger, & Mellinger, 1981).

1. Try to work out a compromise.
2. Try to smooth things over.
3. Try to reason with my spouse.
4. Carefully listen to him or her.
5. Try to talk it out.
6. Express my thoughts and feelings openly.
7. Try to understand what my spouse is really feeling.
8. Accept the blame.
9. Apologize.
10. Try to find a solution that meets both needs equally.
11. Try not to let our disagreements get out of hand.

Response scale: 1 = *never*; 2 = *rarely*; 3 = *sometimes*; 4 = *usually*; 5 = *always*

Source:
Gottman, L. M. (1994). *What predicts divorce? The relationship between marital processes and marital outcomes*. Hilldale: Erlbuam.
Kerig, P. K. (1996). Assessing the links between interparental conflict and child adjustment: The
conflicts and problem-solving scale. *Journal of Family Psychology, 10,* 454-473.
Rands, M., Levinger, G., & Mellinger, G. D. (1981). Patterns of conflict resolution and marital satisfaction. *Journal of Family Issues, 2,* 297-321.

Family Cohesion

Mothers and fathers responded to the following five items (Lansford, Ceballo, Abbey, & Stewart, 2001; Rossi & Rossi, 1990):

1. Our family has fun together.
2. Things are tense and stressful in our family.
3. Family members show concern and love for each other.
4. Family members feel distant and apart from each other.
5. Our family works well together as a team.

Response scale (reverse scored): 1 = *strongly agree*; 2 = *agree*; 3 = *disagree*; 4 = *strongly disagree*

Source:

Lansford, J. E., Ceballo, R., Abbey, A., & Stewart, A. J. (2001). Does family structure matter? A comparison of adoptive, two–parent biological, single-mother, stepfather, and stepmother households. *Journal of Marriage and Family*, *63*(3), 840-851. doi:10.1111/j.1741-3737.2001.00840.x

Rossi, A., & Rossi, P. (1990). *Of human bonding*. New York: Aldine de Gruyter.